

WHAT IS CLAIMED IS:

1. A honeycomb sandwich panel comprising:  
a honeycomb core having a number of cells  
extending therethrough in a thickness direction of the  
5 honeycomb core; and  
a front surface layer and a rear surface layer  
provided on both sides of the cells in the thickness  
direction of the honeycomb core and closing openings of  
the cells, at least one of the front surface layer and  
10 the rear surface layer being made of a fiber reinforced  
plastic using a phenolic resin as a matrix.
2. A honeycomb sandwich panel according to  
claim 1, wherein each of the front surface layer and  
the rear surface layer is made of at least a single  
15 layer.
3. A honeycomb sandwich panel according to  
claim 1, wherein each of the front surface layer and  
the rear surface layer is made of a carbon fiber  
reinforced plastic using a phenolic resin as a matrix.
- 20 4. A honeycomb sandwich panel according to  
claim 1, wherein each of the front surface layer and  
the rear surface layer is made of a glass fiber  
reinforced plastic using a phenolic resin as a matrix.
- 25 5. A honeycomb sandwich panel according to  
claim 1, wherein the honeycomb core is made of a light  
metal.
6. A honeycomb sandwich panel according to

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TOTAL 90008860

claim 1, wherein the honeycomb core is made of a material selected from the group consisting of Nomex and a glass fiber reinforced plastic.

5 7. A honeycomb sandwich panel for use in an interior material of a spacecraft comprising:

a honeycomb core having a number of cells extending therethrough in a thickness direction of the honeycomb core; and

10 a front surface layer and a rear surface layer provided on both sides of the cells in the thickness direction of the honeycomb core and closing openings of the cells, at least one of the front surface layer and the rear surface layer being made of a fiber reinforced plastic using a phenolic resin as a matrix.

15 8. A honeycomb sandwich panel according to claim 7, wherein each of the front surface layer and the rear surface layer is made of at least a single layer.

20 9. A honeycomb sandwich panel according to claim 7, wherein each of the front surface layer and the rear surface layer is made of a carbon fiber reinforced plastic using a phenolic resin as a matrix.

25 10. A honeycomb sandwich panel according to claim 7, wherein each of the front surface layer and the rear surface layer is made of a glass fiber reinforced plastic using a phenolic resin as a matrix.

11. A honeycomb sandwich panel according to

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TOTAL 9005860

claim 7, wherein the honeycomb core is made of a light metal.

12. A honeycomb sandwich panel according to claim 7, wherein the honeycomb core is made of a material selected from the group consisting of Nomex and a glass fiber reinforced plastic.
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